

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 01-290222

(43)Date of publication of application : 22.11.1989

(51)Int.Cl.

H01L 21/205

(21)Application number : 63-120875

(71)Applicant : FUJITSU LTD

(22)Date of filing : 18.05.1988

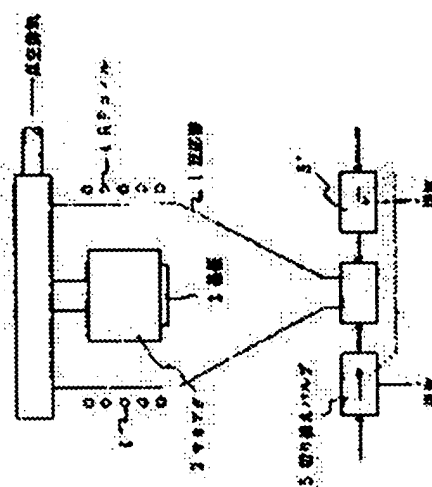
(72)Inventor : OTSUKA NOBUYUKI  
OZEKI MASASHI  
MOCHIZUKI KOJI

## (54) SEMICONDUCTOR VAPOR GROWTH METHOD

## (57)Abstract:

**PURPOSE:** To execute epitaxy of an atomic layer of a compound semiconductor at a low temperature by a method wherein a raw material gas containing a specific alkylated substance and a raw material gas of another element constituting the compound semiconductor are supplied alternately to a growth apparatus.

**CONSTITUTION:** An alkylated substance of at least one element constituting a compound semiconductor is expressed by a formula  $(C_4H_9)_nH_3-nM$  (where M represents a metal element and n is 1 to 3); a raw material gas containing this alkylated substance and a raw material gas of another element constituting the compound semiconductor are supplied alternately to a growth apparatus. That is to say, while the gases flow continuously at a definite flow rate from individual supply sources, they are switched by means of valves 5, 5' and supplied to a reaction tube 1. By this setup, epitaxy of an atomic layer is executed at a substrate temperature; which is by several tens of °C lower than a conventional temperature; epitaxial growth having a steep heterointerface can be executed.



## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the  
examiner's decision of rejection or application  
converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of  
rejection][Date of requesting appeal against examiner's decision  
of rejection]

[Date of extinction of right]